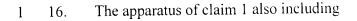
CLAIMS

1 1. Apparatus compri	Sil	ng
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- 2 a cavity having a cavity dimension, the cavity being
- 3 configured so that the cavity dimension changes in response to
- 4 electrostatic forces applied to the cavity, and
- at least two electrical structures configured to apply
- 6 electrostatic forces in the vicinity of the cavity, the electrical
- 7 structures being independently controllable.
- 1 2. The apparatus of claim 1 in which the cavity dimension is
- 2 determined by a distance between two walls, and the cavity
- 3 dimension determines optical properties of the cavity.
- 1 3. The apparatus of claim 2 in which the optical properties
- 2 include interference.
- 1 4. The apparatus of claim 2 in which the optical properties
- 2 include reflectance.
- 1 5. The apparatus of claim 1 in which the two electrical
- 2 structures comprise electrodes.
- 1 6. The apparatus of claim 1 in which the electrical structures
- 2 lie on a wall of the cavity.
- 1 7. The apparatus of claim 6 in which the electrical structures
- 2 lie side by side on the wall of the cavity.

- 1 8. The apparatus of claim 1 in which the cavity comprises an
- 2 interference modulator and the cavity dimension determines an
- 3 optical state of the modulator.
- 1 9. The apparatus of claim 1 in which changes in the cavity
- 2 dimension that occur in response to the electrostatics forces are
- 3 characterized by hysteresis.
- 1 10. The apparatus of claim 1 also including a second cavity
- 2 adjacent to the cavity, the cavity and the second cavity sharing a
- 3 common wall.
- 1 11. The apparatus of claim 1 also including stops within the
- 2 cavity, the stops defining an intermediate cavity dimension
- 3 between a minimum cavity dimension and a maximum cavity
- 4 dimension.
- 1 12. The apparatus of claim 11 in which the stops define
- 2 channels between them in which portions of a wall of the cavity lie
- 3 in response to electrostatic forces.
- 1 13. The apparatus of claim 11 in which one of the electrical
- 2 structures comprises electrodes embedded within the stops.
- 1 14. The apparatus of claim 11 in which the stops lie on a
- 2 movable wall of the cavity.
- 1 15. The apparatus of claim 14 also including apertures in a
- 2 second wall of the cavity configured to receive the stops.



- 2 additional cavities having cavity dimensions, each of the
- 3 cavities being configured so that its cavity dimension changes in
- 4 response to electrostatic forces applied to the cavity, and
- 5 additional electrical structures configured to apply
- 6 electrostatic forces in the vicinities of the cavities, each of the
- 7 additional cavities being associated with at least two of the
- 8 additional electrical structures, the electrical structures with which
- 9 each of the cavities is associated being independently controllable.
- 1 17. The apparatus of claim 16 in which at least some of the
- 2 electrical structures associated with at least some of the respective
- 3 cavities are coupled together.
- 1 18. The apparatus of claim 16 in which the cavities are
- 2 organized in groups by coupling together of selected electrical
- 3 structures.
- 1 19. The apparatus of claim 18 in which the coupling comprises
- 2 bus conductors.
- 1 20. The apparatus of claim 18 in which the coupling comprises
- 2 bus elements fabricated on multiple levels of the apparatus.
- 1 21. Apparatus comprising
- 2 an array of interferometric modulators,

- actuation electrodes associated with the respective
- 4 interferometric modulators, and
- 5 a pattern of conductors connecting the actuation electrodes
- 6 in groups.
- 1 22. The apparatus of claim 21 in which the groups comprise
- 2 rows or columns of the actuation electrodes.
- 1 23. The apparatus of claim 21 in which the groups comprise
- 2 pixels of a display.
- 1 24. The apparatus of claim 21 in which each of the
- 2 interferometric modulators is associated with more than one of the
- 3 electrodes.
- 1 25. The apparatus of claim 24 in which the pattern of
- 2 conductors connects different ones of the electrodes associated
- 3 with each of the interferometric modulators in a configuration that
- 4 enables them to be energized independently.
- 1 26. The apparatus of claim 21 in which the electrodes are
- 2 arranged on walls of cavities of the interferometric modulators.
- 1 27. A method comprising
- 2 energizing one electrical structure to apply an electrostatic
- 3 force in the vicinity of a cavity,

- 4 independently energizing another electrical structure to
- 5 apply an electrostatic force in the vicinity of a cavity.
- 1 28. The method of claim 27 in which the one structure is
- 2 energized to move an element of the cavity to a first position, and
- 3 the other electrical structure is energized to maintain the element in
- 4 the first position.
- 1 29. The method of claim 28 also including de-energizing the
- 2 one structure while the other structure remains energized.
- 1 30. The method of claim 27 also including controlling the
- 2 energizing of the one electrical structure and the other electrical
- 3 structure to effect more than two optical states of the cavity.
- 1 31. The method of claim 27 also including energizing one
- 2 electrical structure to apply an electrostatic force in the vicinity of
- 3 each of multiple other cavities, and independently energizing
- 4 another electrical structure to apply an electrostatic force in the
- 5 vicinity of each of the multiple other cavities.
- 1 32. The method of claim 31 also including controlling the
- 2 energizing of the electrical structures to independently control the
- 3 optical states of groups of one or more of the cavities.